PENERAPAN MODEL NATURAL LANGUAGE PROCESSING UNTUK INTERAKSI NON PLAYABLE CHARACTER PADA GAME SIMULASI KEBUN BINATANG JURAGAN FAUNA

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ABSTRAK

Interaksi dalam *game* simulasi merupakan elemen penting yang akan memengaruhi pengalaman bermain pengguna. Salah satu aspek utama dalam meningkatkan pengalaman interaksi pengguna di dalam *game* adalah menghadirkan *Non-Playable Character* (NPC) yang responsif dan realistis. Dalam hal ini, pengembang game dapat menerapkan model *Natural Language Processing* (NLP) untuk meningkatkan interaksi antara pemain dan NPC. Dalam penelitian ini, penulis akan membahas mengenai metode penerapan NLP dalam *game* simulasi kebun binatang Juragan Fauna, termasuk pemahaman bahasa, generasi respon, dan adaptasi karakter NPC berdasarkan input pemain. Penulis juga akan menggali dampak positif yang mungkin dihasilkan seperti pengayaan cerita serta peningkatan daya tarik permainan. Melalui penelitian ini, model *Natural Language Processing* (NLP) terbukti dapat meningkatkan kualitas dialog didalam permainan menjadi lebih interaktif dengan akurasi jawaban sebesar 80% dan rata rata durasi respon model selama 0.9613991 detik.

Kata Kunci : *Natural Language Processing*, *Game* Simulasi, *Non-Playable Character*.

APPLICATION OF NATURAL LANGUAGE PROCESSING MODEL FOR NON-PLAYABLE CHARACTER INTERACTIONS IN THE ZOO SIMULATION GAME JURAGAN FAUNA

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ABSTRACT

Interaction in simulation games is a crucial element that affects the user experience. One of the main aspects of enhancing user interaction in a game is having responsive and realistic Non-Playable Characters (NPCs). In this context, game developers can implement Natural Language Processing (NLP) models to improve interactions between players and NPCs. This research discusses the methods of applying NLP in the zoo simulation game "Juragan Fauna," including language understanding, response generation, and NPC character adaptation based on player input. The research also explores the potential positive impacts, such as enriched storytelling and increased game appeal. Through this research, it is demonstrated that NLP models can significantly improve the quality of in-game dialogue, making it more interactive, with an accuracy rate of 80% and an average response duration of 0.9613991 seconds.

Keyword : *Natural Language Processing, Simulation Game, Non-Playable Character*.